

In these thickets are several species of temperate zone affinities, including *Berberis aristata*, *Rubus lasiocarpus*, *R. moluccanus*, *Lysimachia ramosa*, *Valeriana Moonii*, *Campanula fulgens*, *Sanicula europaea*, *Gaultheria fragrantissima*, *Rubia cordifolia*, and *Cynoglossum micranthum*. *Ulex europaeus* is naturalized freely in the patanas immediately about the town of Nuwara Eliya, and seems to flourish. *Verbascum Thapsus* is also a common roadside weed, but appears less hairy than in America.

The most noteworthy roadside plant of the region is a lobelia, *L. nicotianaefolia*. It has the general habit of the mullein, and grows in the same habitat, but its suffrutescent stems reach a height of twelve feet.

Six miles from Nuwara Eliya along a beautiful macadamized road lies the mountain garden of Hakgala. It is located at an altitude of about 5,000 feet, at the foot of the precipitous Hakgala Peak. The garden grounds are very attractive, and present a very interesting display of conifers and tree ferns.

(The end)

PARTHENIUM LLOYDII, A NEW MEXICAN GUAYULE

BY HARLEY HARRIS BARTLETT

In the summer of 1909 Prof. F. E. Lloyd referred to the writer for study and description a *Parthenium* which he believed should be segregated from *Parthenium argentatum*, the rubber-plant of Chihuahua and neighboring states. Since that time Prof. Lloyd has pointed out and illustrated the distinctive characters of the two plants,* so that it is only necessary to present an abstract of his account and a formal diagnosis of the new species.

In *Parthenium argentatum* the monopodial growth of the seedling is terminated by the development of the first inflorescence. Extension of the stem system takes place at the base of the well-differentiated peduncle, by the growth at that point of two or three branches, whose growth is in turn terminated by inflorescences. As a result of this sharp delimitation of leafy stem and

* See p. 55 of his monograph entitled *Guayule, a Rubber-Plant of the Chihuahuan Desert*. Carnegie Institution of Washington, Publication No. 139, 1911.

peduncle the branching of old plants is closely and repeatedly divaricate. Grown plants are often finely symmetrical.* In *Parthenium Lloydii*, however, the branching is like that of the mariola, *Parthenium incanum*. The stem is more slender than in *P. argentatum*, and the leafy peduncle is not sharply delimited. Well up toward the inflorescence it bears short leafy spurs which elongate after the close of the flowering season. A grown plant of *Parthenium Lloydii* is therefore characterized by intricate interweaving of the branches. In herbarium specimens the striking difference between the two species lies in the form of the leaves, which in *P. argentatum* are relatively only half as wide as in *P. Lloydii* and rather deeply lacinate, whereas in *P. Lloydii* they are typically sparsely dentate or denticulate.

Parthenium Lloydii sp. nov. *P. argentato* valde similis, sed ramis gracilioribus more *P. incani* implicatis. Foliorum majorum laminae oblanceolatae, 15–18 mm. longae, 5–8 mm. latae, integerrimae vel parce denticulatae, apice acutae vel obtusiusculae, basi in petiolum 2–3 mm. longum angustatae. Inflorescentiae axis foliosus altero anno ramulifer.—Hacienda de Cedros, Partido de Mazapil, Zacatecas, Mexico, F. E. Lloyd, Nos. 255 and 256, in Gray Herbarium. Illustrated by Lloyd, Guayule, a Rubber-Plant of the Chihuahuan Desert, Carnegie Institution of Washington, Publication No. 139, plates 12 and 13, 1911.

In the type material of *P. Lloydii* the pappus awns are slightly incurved toward the base, but diverge at the apex. In most material of *P. argentatum* the awns curve away from one another at the base and are somewhat incurved at the apex. This distinction, pointed out by Professor Lloyd, does not seem to hold throughout the large series of specimens of *P. argentatum* in the Gray and the National Herbaria, but in view of McCallum's recent report† that the guayule consists of as many as 125 segregable elementary species, the occasional inapplicability of this character is not to be wondered at. The curvature of the pappus may serve to distinguish *P. Lloydii* from certain segregates, but not from others.

UNIVERSITY OF MICHIGAN,
ANN ARBOR, MICHIGAN

* Lloyd, l. c. plate II, fig. A.

† Science, n. s., 42: 395. 1915.